

African Lion

Panthera leo

1. Animal Type: Mammal
2. Conservation Status: Vulnerable
3. Size
 - a. Male: 330-550 lbs, 10 feet long
 - b. Female: 265-395 lbs, 9 feet long
4. Social Structure:
 - a. Lions live in family units called prides which range from about a dozen to as many as 40 members and include only one to three adult male members. Females raise young and are primary hunters while males defend the pride's often-large territory. Young males are killed or driven out of the pride as they grow and must fight to achieve a spot in another pride.
5. Reproduction:
 - a. Time of year: Females have a litter about every two years and gestate for three and a half months
 - b. Number of Young: One to six cubs at a time
 - c. Rearing/Mothering: Cubs nurse for six months, but can begin to eat meat at three
 - d. Special Exhibit Needs: Constant access to a male during duration of estrous cycle
6. Behavior:
 - a. Nocturnal vs. Diurnal: Nocturnal
 - b. Shy vs. Curious: Curious
 - c. Jumping Ability: opinions vary in range of 12'-15' vertical and up to 36' horizontal
 - d. Top Land Speed: 35-50 mph
 - e. Water speed: Lions can swim but only will if necessary and at speeds relative to a human in the water 2-5 mph
 - f. Unique Behaviors: Lions have versatile strategies to keep from going hungry including coordinating complex group attacks on prey, hunting solitarily and even stealing kills from other predators
7. Captivity
 - a. Frequency in captivity: Common
 - b. Noteworthy exhibits:
 - i. Busch Gardens Tampa—Edge of Africa
 1. Size: 14,000 sf between two yards (rotation with Hyena)
 2. Opening date: 1997 at \$2.3 million
 3. Number of Animals: Up to 6 of each species (3700 sf holding building)
 4. Designer: PGAV
 - ii. Dallas Zoo—Giants of the Savanna
 1. Size: 16,000 sf between two yards (rotation with Cheetah)
 2. Opening date: Summer 2010
 3. Number of Animals: 5 lions (3 cheetahs)
 4. Designer: CLR
 - iii. Article from National Zoo on success of lions in captivity:
<http://nationalzoo.si.edu/Publications/ZooGoer/2011/1/lions.cfm>
8. AZA Husbandry Recommendations
 - a. Min. Exhibit Area: 300 sf/1 + 50% additional
 - b. Min. Size Pool: n/a
 - c. Barrier: 16' vertical wall ; moat 25' wide x 15' deep
 - d. Water Temp: n/a
 - e. Air Temp Range: N/A, but exhibit should include 50% or more shaded areas for the animal to rest

9. Enrichment

a. Zoo approved

i. Predatory

1. Many zoos use puzzle feeders as a way for the lions to be able to prey on their food.
 - a. Pinatas: The food is stuffed into a cardboard animal, or box, that the lion must 'pounce' on or rip into in order to receive food.
 - b. Ice: Some zoos freeze large chunks of food into ice, to encourage the animal to have patience and not to expect an easy feeding.
 - c. Zip lines or Springs: These devices can have food strung on them to allow the food to 'move' so the animal can attack.
 - d. Hay Sacks: food or hay scented as food so the animal has to rip into the hay to receive their meal.
 - i. The scents can be man-made
 - ii. The scents can be from natural prey's urine.
 - iii. The scents can also be natural herbs that the lion may not be familiar with.

ii. Sensory Enrichment

1. Many zoos add different scents at various times around the exhibit to encourage the animals' curiosity.
 - a. The scents can be man-made.
 - b. The scents can be from natural prey's urine.
 - c. The scents can also be natural herbs that the lion may not be familiar with.

iii. Social Interaction:

1. Many zoos use this interaction as a way to encourage the animal to be social with humans.
2. Lions are encouraged with whistles and rewarded with raw meat to make vet time as easy and painless as possible, without having to put the animal under.
3. Special events near the exhibit can help get the animal out of the daily routine and used to surprises.

iv. Habitat Enrichment:

1. Zoos should keep the animals' typical habitat in mind when designing the new exhibit.
2. High platforms can be provided to use as look-outs.
3. Lairs can be mimicked with caves and crevices.
4. Toys can represent the surprises in the wild.
5. Trees or simulated trees can be used for marking with claws.

b. Other Ideas:

i. Rotating prey and predator habitat

1. Although perhaps tried in some zoos, rotating prey and predator habitat can help the lions take more interest in their surroundings, and be more cautious.
2. Provide 'tracks' in the exhibit like at race tracks for their food to zip along while they chase it.

10. Fun Facts

- a. Every pride consists of a union of related females with successive coalitions of adult males, who are unrelated to the lioness.
- b. Lions tend to abandon the wet areas during the rainy season, preferring the higher, better drained areas that the warthogs and topi favor.
- c. Lions often scratch at the base of trees with their claws to leave a visible tear in the bark. This is a form of territorial marking and also helps keep the claws sharp.
- d. A lion's roar can be heard up to five miles away

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